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Cover: Signpost for Crown Oaks Condominiums at the
Springs, Seminole County, Florida by Schweizer Associates
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6/72

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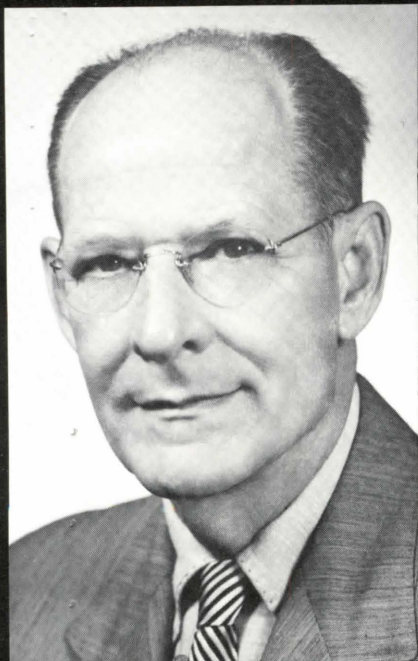
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In Memorium

Russell T. Pancoast, FAIA



The dean of Miami's architects, Russell T. Pancoast, FAIA, who came to the area in 1913 as a school boy to join his pioneer resident family when Miami was still the primitive place of birds, fish and crocodiles, died after a short illness.

Pancoast attended Cornell University in 1922 to study architecture. Although there was no family precedent for that field of study, he felt this profession would be inevitable to the emergence of Miami as a large city.

Long active in architectural professional organizations, he was a Fellow of the American Institute of Architects, past

secretary of the Florida South Chapter; a member of the Florida Association of the American Institute of Architects and was a past President of the Florida State Board of Architecture, on which he served a total of thirteen years.

His own firm grew over the years to become one of the largest design oriented firms in the state. Although the firm has been responsible for a great number of projects, those in which Pancoast himself was closely involved were the Miami Beach Auditorium, the Museum of Science, the planning of Snapper Creek Lakes subdivision, and the recently constructed Miami Beach First National Bank.

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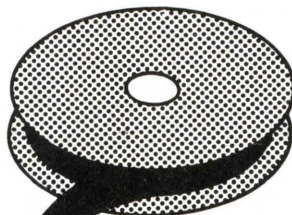
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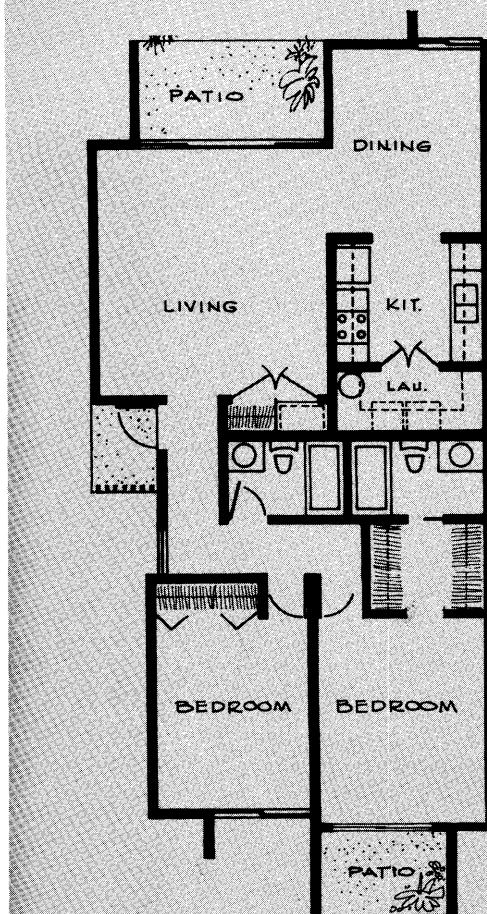
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PHOTOS: ROBERT DUNCAN BRAUN



Winner of the 1972 Architect's Award from the Florida Section of the Society of American Foresters

Crown Oaks Condominium

ARCHITECT: Schweizer Associates Architects Inc
DESIGN ARCHITECT: Lowell L. Lotspeich, A.I.A.
DEVELOPER: EDG Developments, Incorporated

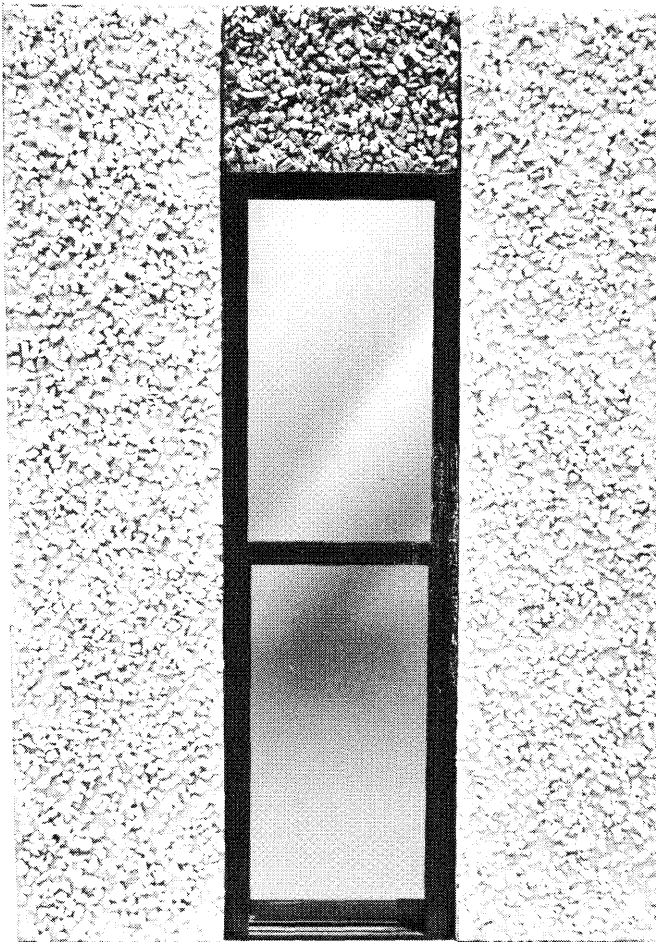
Crown Oaks is a highly controlled condominium community, sensitive to design and responsive to the problems and opportunities afforded by an unusual natural setting.

It consists of 36 dwelling units where siting of the various structures, with the use of the European village concept, has been accomplished to provide privacy and variety, while insuring against monotony through the use of repetitive forms.

Wood products have been used extensively throughout the project. Special features include signage and exterior lighting.

Wood materials included in the construction are primarily cedar, selected because of its low maintenance character and because the use of this natural material established the rich character of the development.

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Convention Camera



PHOTOS: KURT WALDMANN

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"Also the slight difference between operating an electric heating system as opposed to competitive

systems," Skemp said, "is far over-shadowed by the low initial cost of installing an electric system and the diversity of use.

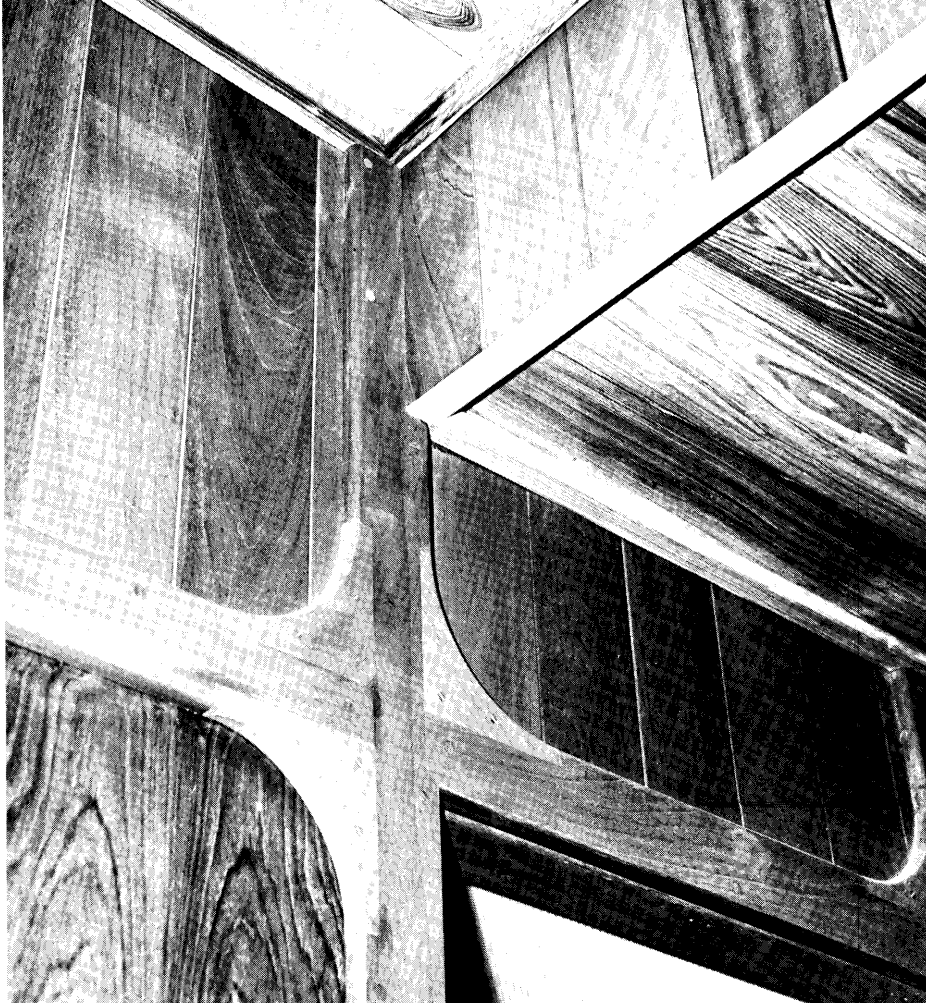
"As it is, we have five zones on each floor, so that each can be operated separately without having to depend on a continuously operating central system.

"And, of course, the beauty of our electric heating system is the lack of major maintenance worries."

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John Pendarikis was cited for "Craftsman of the Year" for the outstanding execution to interior woodwork, overall excellence of workmanship of very detailed woodwork performed on the Old Port Cove Yacht Club, North Palm Beach. The design was performed by the firm of Ficker, Schwab & Twitty, AIA of Palm Beach. Mr. Pendarikis is employed by Artisan Wood Crafters.



Craftsman Awards

E. L. Thompson & Son, Inc. was cited for "Craftsmanship of the Year" for work executed on the Seventeenth Century Gallery Addition, Cummer Gallery of Art in Jacksonville, designed by Drake/Pattillo and Associates. The citation reads: "Lath and plaster arches, vaults and ceilings. The plastering work exhibits outstanding craftsmanship in the skillful execution of the complex geometric ceiling patterns. Careful planning was required to construct a suspended metal framework used as supporting members for the plastering work that was to follow. Accuracy of line and plane was critical, as the slightest deviation would be magnified because of the inter-relationship of the various surfaces. The lines and surfaces of the plastering work are clean and artfully finished, and contribute a high degree of refinement to the atmosphere of the spaces. The work exhibits the sincere efforts of the two mechanics, Roscoe Gootee and J. T. Henry, who performed the work and it is truly representative of the outstanding quality of work consistently performed by the E. L. Thompson & Son, Inc., company."



PHOTOS: KURT WALDMANN

Architect William K. Jackson, AIA of Jacksonville was one of two recipients of the 1972 "Architect Community Service" Award. Jackson's activities in Community Affairs have included:

In early 1960 Mr. Jackson was the "prime force" in getting a study committee established through the Chamber of Commerce for reviewing the needs of long range planning in the Jacksonville area. Mr. Jackson was appointed Chairman of this committee and it was largely through the efforts of this committee that legislation was developed and passed in the 1962 legislature which formed the Jacksonville Duval Area Planning Board. Mr. Jackson was elected the first Chairman of the Board and has been reappointed to the Board (2 times) and re-elected chairman since.

Some of the more significant accomplishments of the Planning Board to date are:

1. Assembling, organizing and establishing a technical staff along the lines of good business practice.
2. Work and project studies preparatory to completing the Comprehensive Land Use Plan. This has been a 5 year project and will be completed in 1973.
3. Coordination and assistance in the Jacksonville Urban Area Transportation Plan.
4. Completing and adopting a Comprehensive Downtown Plan using the services of a nationally recognized consultant.
5. Initiating and accomplishing an establishment of a Downtown Authority charged with the responsibility of implementing the Downtown Plan.
6. Preparing and adoption by the city of a Comprehensive Zoning Plan and Ordinance.
7. Establishing a Capital Improvements Plan of projected needs in each city department over a 5 year period, to be re-evaluated each year.
8. Establishing a Subdivision Code with final review authority by the Board.
9. Community Appearance Studies.
10. Establishment of a Zoning Board.
11. Providing technical staff and assistance to adjacent county governments on federal assisted planning projects.

For a period of more than 12 years Mr. Jackson has provided leadership, initiative and professional guidance to the planning process for the community. It has been largely through his initiative and continued work that planning now enjoys respect and acceptance by the community.

Architect Community Service Award



Architect Thurston Hatcher, AIA of Miami, was one of two recipients of the 1972 "Architect Community Service" Award. Hatcher's activities in Community Affairs have included:

1. Founder and currently first President of Florida's (and possibly the nation's) first Tree Bank, a non-profit corporation whose purpose is to collect unwanted trees and replant them for public use on rights of way, streets, parks, schools and other such areas.
2. Urged and seen both the City of Miami and Dade County adopt Tree Preservation Ordinances, based on provisions drafted basically by Hatcher, which are designed to set up stiff fines for developers or others who wantonly destroy trees.
3. Led the fight seeking adoption by both the City of Miami and Dade County of "incentive zoning" which would permit developers to gain additional square footage in certain areas in return for them providing more setback, better landscaping and other amenities above the requirements of the Law. Urged and was instrumental in the establishment of City and County Urban Development Review Boards.
4. Appeared as an expert witness for the City without pay and furnished the Court with AIA films on billboards when the City of Miami went to Court to force a billboard firm to stop violating city ordinances and to remove elevated billboards from Biscayne Boulevard and other areas.
5. Worked for almost a year with City of Miami Planning Department officials in devising a Planned Unit Development ordinance for the City of Miami which would serve as a model for the City and other governmental units in Dade County.
6. It was announced that a new Government Center was to be built in downtown Miami, providing office space for the State of Florida, Dade County and the City of Miami, he and other AIA leaders demanded that it be master planned properly to avoid a hodge-podge of buildings and that the greatest architects in the nation be permitted to enter competitions to select the architects.
7. Was named to an Auditorium Site Selection Committee by Miami Mayor David T. Kennedy to decide on the best possible location for a City Auditorium, and organized an esquisse on the auditorium site selection and organized four AIA teams to make reports on four possible sites for the auditorium.
8. Has spearheaded the move to change city and county zoning laws to provide for professionals on zoning Boards.

Architect Community Service Award



Carl E. B. McKenry, Vice President of Academic Affairs for the University of Miami was selected to receive the 1972 "Award of Merit." Selection was based on the following:

1. As Director of the Center for Urban Studies of the University of Miami from December, 1968 to January, 1972, Carl McKenry organized three programs involving architects —

A. Community Development Program (Under Joe Middlebrooks, AIA)

B. Division of Applied Ecology (Under Albert Veri, Landscape Architect and Associate member of AIA)

C. Urban and Regional Planning Program (Within Department of Architecture, University of Miami)

2. As Director of the Center for Urban Studies of the University of Miami, Carl McKenry has become involved with architects at every opportunity, attended most meetings of the Florida South Chapter and helped that Chapter to organize and acted personally as moderator for three urban workshop cruises in 1969, 1970 and 1971.

3. As Director for the Urban Studies of the University of Miami, Carl McKenry has been instrumental in reorganization of the Center for Urban Studies, the School of Engineering, and the Architecture Department by assisting in the selection of his architect successor, by inserting environmental design into a newly organized engineering department, and by assisting in the removal of the Department of Architecture as subordinate to Engineering, making possible at the University of Miami a multi-discipline approach to design.

Award of Merit



1973 FAAIA Officers



Left to right: Leslie Walker, Regional Director; Frank R. Mudano, Vice-President — President Designate; Thomas H. Daniels, President; James E. Ferguson, Jr., Treasurer; Rudolph M. Arsenicos, Secretary.

Anthony L. Pullara Memorial State Member Award

Architect, Robert Boerema, AIA of Miami was the recipient of the 1972 Anthony L. Pullara Memorial-State Member Award. Boerema is past president of the FAAIA. During the present year, Boerema has represented the FAAIA on two Committees at Tallahassee:

1. Professional advisor to the Joint Legislative Management Committee regarding the Construction of capital center project, specifically legislative office buildings currently under construction.

2. Appointee to fixed capital outlay advisory committee for the Florida House of Representatives.

The Joint Legislative Management Committee recognized the need for a consulting architect to advise them on the many facets of the Capital Center Project. Boerema's report to the Committee after thorough investigation revealed important items not previously included in the total construction program. At the request of the House of Representatives, Boerema was appointed to represent the FAAIA on the five man advisory committee to the subcommittee on fixed capital outlay.



Anthony L. Pullara Memorial State Chapter Award

The Florida Central Chapter, AIA (Hillsborough/Clearwater/St. Petersburg/Polk County) was the recipient of the 1972 Anthony L. Pullara Memorial-State Chapter Award. The Florida Central Chapter was selected to receive the Award on the basis of its Chapter's activities.

1. Clearwater — The members of the Clearwater Section, long active in the downtown redevelopment of Clearwater, donated over \$1,000 to bring the Urban Design Assistance Team of the AIA to Clearwater for a Charrette Study of their city. This visitation resulted in a report and recommendations which will act as a catalyst for planning action.

2. St. Petersburg/Clearwater — The two Sections in Pinellas County cooperated with local industry to present the annual Architects Annual Building Award Association Banquet to recognize local architecture. The awards banquet, attended by over 300 people, was highlighted by an address by Max O. Urbahn, FAIA, President of the Institute and was attended by visiting dignitaries of the Bulgarian Institute of Architects.

3. Tampa — Initiation of Tampa Downtown Development Committee which has been appointed by the Mayor to serve as a standing "Metropolitan Development Authority." The Section is represented by two members on the governing body. Coordinated with the City Parking Authority and the City Engineering Department to lead the way in providing aesthetically designed and functional bus shelters and provided design services for the prototype shelter. Presentation of a display in a local department store show window in downtown Tampa to depict, in sequence, the creative design process employed by a typical Architectural Office.

4. Student Chapter — The Chapter sponsored the formation of a Student Chapter at St. Petersburg Junior College.

5. Tampa Downtown Mall — As a result of a "Why-Why Not" program sponsored by the Chapter two years ago, the City of Tampa is presently starting work on a 3 block mall in the center of the downtown area, with design work furnished by chapter members.



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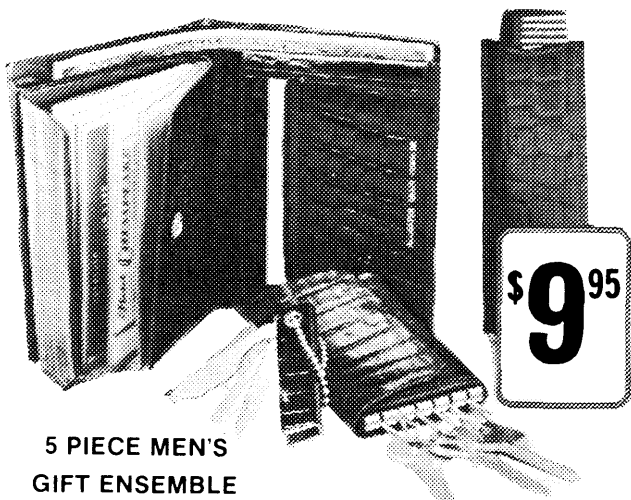
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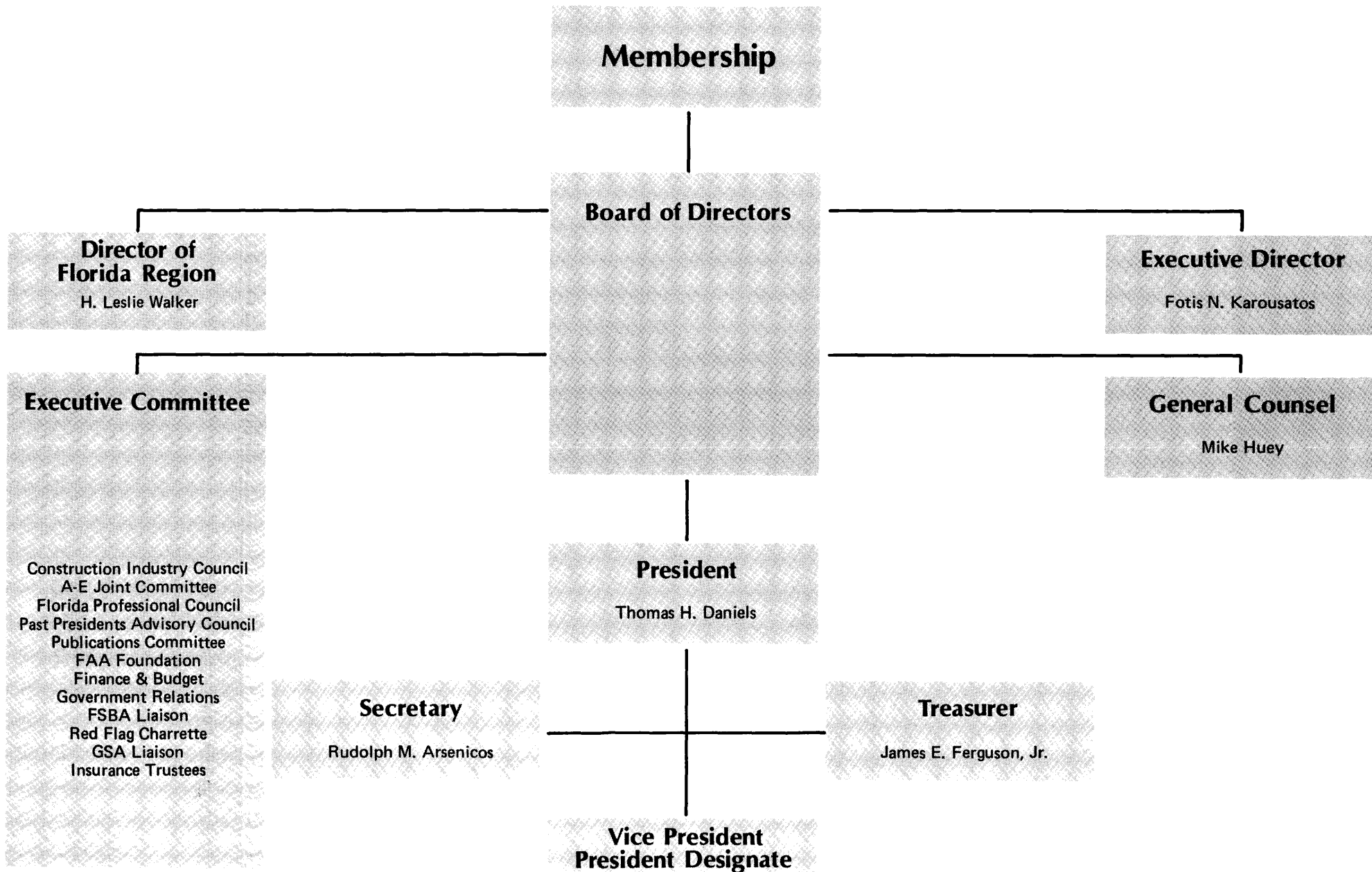
kurt waldmann, architectural photography

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You mentioned that under your construction management division you assumed responsibility for costs. Just how much responsibility do you assume?

It varies. If a project is far enough along in plans to where we can go to a general contractor and get from him a guaranteed maximum that is satisfactory to us obviously that general contractor has responsibility to deliver. But in that case it is still our responsibility to supervise on a day to day basis, to be sure that the construction is on schedule, and to be sure that the contractor is doing everything that he is responsible for doing.

What advice would you have to give to the young people here, the students who are studying architecture who might wish to go as architects into the development area?

I think I would start the answer by saying that the architectural schools today, like the American Institute of Architects, have faced reality. I think they are tremendously improved. My first concern is that whatever an architectural student can do, whatever courses he can take, whatever electives that will better fit him for several areas, one of which should have a recognition that costs to many clients is important. Any courses that he can take that will give him a greater feel for people will be to his advantage. I feel that if it is possible to work in a few courses relating to business, it would be most judicial. For young men and women in architecture, you should know what young practicing architects learn quickly and rudely, and that is, it is one thing to create an idea and it is another thing to sell it, and if you can become somewhat concerned, I know that to some of you this sounds abhorrent, but if you want your stuff built, you better think about the guy that is going to buy it, otherwise that beautiful idea will gather dust in the vaults either at your own office or at your own school, and if you stay with that, you won't be in the practice of architecture. And, lastly, that if you start out knowing you want to do a project within a budget, but that you want quality, you want it to have aesthetics, you can do it.

Charles Luckman at the Convention



Among the group are many young men and many older practitioners who would like to get into this developer/architect phase of life. Could you give them some advice as to how they might from a small firm work into this method of business relationship?

I don't think that it's difficult for a small practicing architectural firm to get into the development business if it really wants to. If the sole objective is to make money, I really would advise against it. If it is to try to do something worthwhile and also make money, I would recommend for it. But start very modestly. It's not difficult really if you have developed a good name as an architect, a reputation for character and integrity. It's not difficult to conceive a four unit apartment, to talk to a bank, to work with a bank, and I am really speaking from experience. We did some of this is CLA before we became part of Ogden. We got our hand wet in this ocean of development. We did it very carefully, very slowly, very modestly. Don't, under any circumstances do it without the advice of an accountant and attorney. Build a reputation in the new field as you have built in your present field, and if you haven't built one in your present field, you'll fail in the new field.

What could the future of the architect be, whether partnership or corporate, and if corporate, to keep the business man out of it at the head, the man who wants to make his money?

I like everything about your question except that last part about keeping the business man out, I really wouldn't. I don't think I could subscribe to keeping him out. I could subscribe to the businessman in the firm, not necessarily being the president but I would be awfully sure that I had a very experienced man as vice president in charge of money, meaning your own money, as an architect. The one thing that most of us learned the hard way when we started practicing architecture was that we had some abilities in every direction except how to keep track of the costs of our own jobs, our own work, our own effort in relationship to the fees we were getting. In other words, how to make a little money as well as how to have a tremendous enjoyment of achievement of having something come up out of the ground in which you have had a hand. I believe myself that ten years from now there will be only two kinds of architectural firms: small firms, a principal and three or four men, and very large firms. I don't believe ten years from now there will be medium size firms. The reason is that there is now such a tremendous demand for services not normally within the province of architecture as it has been known in the past. There are so many of these demands made by all kinds of clients, that I think it takes a rather large firm with a rather large volume to afford them all. I think you will see more and more mergers of architectural firms in the next ten years, which to some extent will be for the good. The reason that there will always be the small firms is because there will always be clients who will succumb to the pitch "Look, I have a small organization, you get me this job, and I'm going to handstitch every bit of it myself, I'm going to supervise every part of it, I'll personally design it, watch everything in the working drawings, and when it is in construction. I'm going to do everything myself." Forgive me for calling it that, but unless you are a small firm and you take on only one client at a time it is a pitch, because if you have two clients simultaneously, you are exaggerating. You cannot yourself, do it all. If you have three, simultaneously, you are misrepresenting, and if you have four, you are lying.

Few of us will have the ability to go into projects with the economic background that you have, and will be compelled to get capital from other investors in the project. I wonder what is a fair amount for the architect, as a developer, to ask for his part in putting a project together, apart from his architectural services. What part of the project does he have a right to demand?

There are no hard and fast rules. If I take the premise of your question to be that the architect is in fact the developer, he is assuming the responsibility of the role of developer, he is entitled first to a normal architectural fee and he is entitled to a normal developer's fee. A developer's fee various much more than the architect's fee, based on the size of the project. We have some projects in which our developer fee is 2% of the total project costs, which is not just the costs of bricks and mortar, but the total cost of the investment, and we go up to about 5% in our developer's fees. Now, the architect to whom you have eluded, can take several positions if he wishes to and is able to. First of all, it is not an uncommon practice to put your fees in as part of your equity investment. If the project is not going to actually pay the architect for the cost of the services or pay him a developer's fee, then an equal amount of what those two fees would have totaled will be his equity investment. If other people have to be brought in to put capital in and they have to put in an equal amount, then it is obvious that the architect-developer is entitled to half of the project at least. Now I say at least, because if you are in fact the entrepreneur that has gone out and put this whole thing together, you can properly negotiate for more than half. Let's go back now to the assumption that you don't put your fees in, because you have to live in this interim period, and you need the money. In that case, there are different ways of doing it, but the percentages vary tremendously. For example, I know of some architects who have gotten into the development field, who get their full fees, but get, let's say for example, a 10% ownership position for having put the deal together as a developer. They do not put in any money for that but they own the 10% of the project. Whenever you put money in, which you can do separate from fees, you then for that money get a proportionate share. Now the 10%, hypothetical, what

do you get for putting the whole action together, really varies, depending on how far you put it together. If it is an embryonic idea, you better take 3 to 5% and run like a thief in the night. On the other hand, if you take it to the point that you really have a letter of intent from an important tenant, and you have a letter from the bank based on that they will help you, and you have a letter of intent from a lender, you are then in a position to say, O.K. fellows, come in with some money and for having done all this I am entitled to 30 to 40% of the deal, and you get 60% of the deal. There are innumerable permutations and combinations here. This is why I stress two things so carefully. Take it easy at the beginning, and get damn good legal and accounting advice.

What I would like to conclude with is that I think we should have some place to put our heart other than in our profession, and I think it should be in our country. We have a wonderful country, it is still the land of opportunity. I think that anyone who says that there are dead alleys, does so only because they have lazy minds. I think anyone who says we are past the point of new horizons, simply has no feel for the true substance that has been built up here over nearly 200 years. It is my great conviction, from my heart, that the only limitation on the horizon of tomorrow is the vigor and vitality of our imagination today. ■



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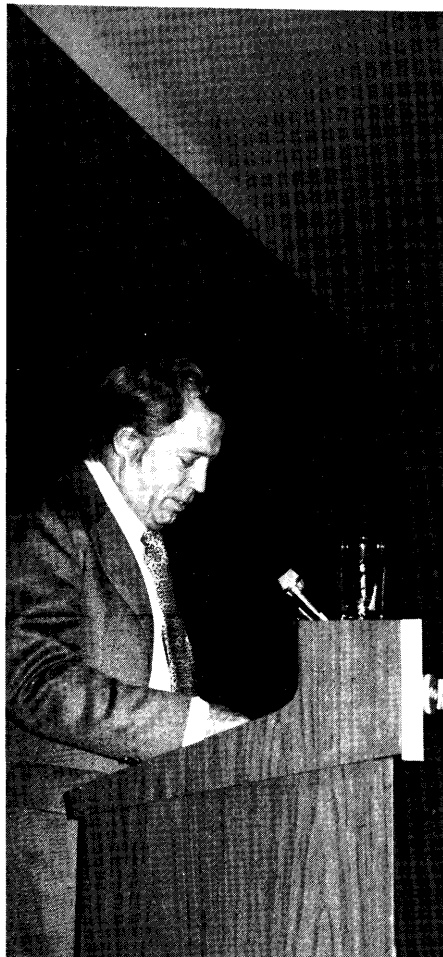
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"The driving force behind what I am trying to do is make a contribution. Each time and each era has its problems and we can work in all kinds of different areas, but there are certain areas that really respond to the time and the age in which we exist. The problem that we are faced with today is our urban environment, our cities, which have grown up from the horse and buggy days, which have an inter structure that we inherited and which no longer functions. We can't go off and leave them, there is no way. The critical need that we have, not only in this country but in every country, is trying to take our existing urban areas and re-structuring them in a way where they become vital and viable in light of a new social condition. That's where we are, that's where I am, and that is why I am doing the things that I am trying to do. I feel that the contribution facing the architectural profession is to recognize that we have a physical or environmental crisis in this country, and that decisions are being made in all areas by people, honestly but unknowingly, doing the wrong things for the wrong reasons in the wrong place. I think the architects offer the hope of maybe creating some kind of order out of this chaos but they can't do it unless they broaden their base, unless they become respected; respected by the businessman, by the administrator, by the financial institutions, as being someone who is not only creative but also a pragmatist. I like to coin the phrase, "Practical Idealist". I think the architect, culturally, educationally, and every other way is more qualified to be the leader of physical development in this country than anyone else.

"There is a thing called "building birth cycle" and that means in the beginning that something happens in somebody's mind as to when they are going to build something somewhere, until it goes through the whole process of being completed, in operation and functioning. The architect, as an architect, is only concerned with one piece of this as it exists today. I don't see anything different from being able to work with finance people, real estate people, feasibility study people, management people, all of the things that go to make this complete cycle of the building birth cycle, than working with a sound consultant, a light-

ing consultant or others. But somehow in our profession, these things have been sort of relegated as something we shouldn't do. The same logic, the same intellect that goes to put together a great building, and all of the things that are involved in doing that, is no different than analyzing the other aspects related to the creation from a feasibility or financial point of view. There are no great mysteries to it, it is simple only if you open your mind and accept it as something that is within your possibility. There has been a tendency in architecture to look down with disdain unless you are the design architect who lives in an ivory castle and does these things that are aesthetically pure and great monuments.

John Portman at the Convention



"The day of the architectural monument and the jewel box is no longer responsive to this time and this age. It was responsive in the 50's when we were coming out of World War II, and we were trying to find ourselves, especially in modern architecture. We were learning new techniques, new technology, and we were branching out into an era of great building when there had been, during the war, no building, so we needed some isolated examples; but today, these isolated examples are no longer responsive to this world. What we are faced with today is the total environment, not the isolated buildings, even though the isolated building is as important as it can be, and hopefully we don't push that aside and do it any less than we would have done in any event. But we must broaden our vision, we must broaden our base, we must realize and understand the kind of world we are living in and what are we going to do as a profession to responsibly face the issues, and the issues I am talking about are the physical issues facing this country. We have got to come back to the human being and create a new kind of environmental condition, one that is worth living in, and this is what we are attempting to do in the hearts of the cities, to take the inherited interest structure, and see how we can adapt it and take things and put them in their proper order and proper place, recognizing and trying to be responsive to the world as we see it today.

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"I opened my office in 1953. I was very distressed to find that a young architect had such a hard time finding work back in those days, and ethically charging the same fee as a firm that had been in business for ten or twenty years or thirty years. It was very tough, and not being content doing classroom additions and all the little remodeling jobs that come along and little houses, I came upon a simple thought, that if I came up with the idea, I selected the location, I designed the facility and I could seek and obtain financing, there would be no question about who would be the architect. That sounds humorous, but it is true, that's exactly how it happened. The first project that I attempted was a co-op medical building. I won a P/A Award that year, 1954. It was an architectural success and a promotional fiasco. It was a failure. With that experience, I came to the conclusion that I could no longer have my failure caused by what someone else does, so I decided that what we would do, we would do the whole thing. I would no longer be relying on someone I had no control over and put my heart and soul into an architectural creation of some kind and then sit back and pray and hope that it is a success because of what somebody else does or does not do. So, then came an opportunity, the building that was to become the Atlanta Merchandise Mart.

"This really was the beginning, and I have found that approaching a financial or business problem or developmental problem is no different than approaching the design of a structure. The complicated problems that you have in trying to work out a good design, and create good architecture, is a hell of a lot more difficult than putting all the pieces together to come up with a financial package. When you see all the idiots running around in the development field and they are doing it, don't underrate yourself.

"What are the advantages or disadvantages of being an architect/developer? The advantages are very clear. The advantages are that I work for myself. It is pretty good to go into conference with yourself and say "Hey, should we do this or shall we do that, and you have an amazing meeting of the minds", and it also spoils you. But really in taking and moving from one hat to another hat, what really makes a realist out of you is when you have to go down to the bank and sign your name on the back of the note. You know then, that even though you can be very imaginative and very creative, you have got to be very practical and very pragmatic, and you have got to not get so carried away that you create a wonderful monument that fails.

"I feel that the profession, and very strongly so, is much like cities of this country, we are riding on an old, antiquated, out-dated interest structure. It's got to be changed, to recognize the new conditions that exist today. In order to do that means that we have to broaden our base, if we are going to have a voice and a say in what this world is going to be like. It is either going to be great, or it is going to be lousy. The developers are taking over more and more of the rebuilding of this country. Even the corporate entities are turning to the developers, because most of the corporations are not set up to do a proficient job, and are beginning to recognize it. So when you analyze what is happening, you know, what's left. The doctor who builds a little medical building, a little residence here and there, which means, it is almost insignificant in the totality of what the building industry and the architectural profession is all about.

"I know that there is a trend now for architects to work with developers and take a percentage of ownership as a partial payment of fee or all payment of fee, or something of that nature. We have never done that. We take the standard fee, and everything that is done, is done in arm's length position. The architectural firm operates in a traditional architectural capacity. We never confuse the developmental posture with the architectural and professional firm, even though it is the same ownership. The tax people will get you if you do it anyway. It is not good from a pragmatic point of view anyway, because each entity should justify its own existence and stand on its own feet, so therefore we have a consistent relationship, and it just so happens that our ownership position in developmental projects so far never involves fee. The reason that is true is that we are known in the developmental circles as being a legitimate bona fide developer as well as an architect, and we make joint ventures with other developers and that joint venture entity turns around and retains the architectural firm as if it was retaining the architectural firm of a stranger. I think this is very important, because if you start leaning things and making compromises into various financial postures, you are bound to ultimately get into fiscal trouble.

John Portman, continued

"Advice to young architects? Students, my advice is to analyze what the building birth cycle is, to understand growth patterns, understand feasibility study, and once you establish growth patterns, understand potentials, understand the economics, the very basics of real estate, land values and what the influence of land values are on to ultimate developmental costs. Understand the financial picture, and know what a change of interest rate from 1 point to another means, and the overall cost and the possibility of being able to do a project. The schools have got to begin to reconstruct their programs so that we can turn out professionals who can approach the totality of physical change and physical construction in this country, and then we may begin to approach some sensibility in this wild uncontrolled growth that has been going on in this country.

You have to structure it in such a way so that it relates to the building birth cycle. You have to have legal advice, financial advice, real estate advice. You have to have feasibility studies, which really go back into the financial feasibility of something happening in a given place, you have to have management input, whatever it is, because ultimately you end up operating it on a day to day basis. So the team, which covers this whole cycle, can operate on what I call a "main thrust theory". I don't want the biggest organization in the world, and I don't want bodies. I want brains. So the idea of the main thrust is to take each of the main categories and get the finest man, much like a coach would build a football team. The same is true in building an architectural/developmental organization, but the architect controls, the architect is the leader. There has to be a vision, there has to be a concept, there has to be a philosophy."

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For many years architects have shouldered a little-deserved reputation for being very bad estimators of the cost of projects for their clients. That other groups could do better estimating made no difference. Give general contractors a set of schematic sketches and a construction outline for an estimate and, depending on the number of general contractors and how many of them had done identical work for your office previously, their estimates will vary 100%. Even bidding by contractors on completed bidding documents show differences of 10 to 15%, sometimes 20%, between low and high bidder.

If estimating costs from incomplete drawings is so difficult, why are architects expected to be as accurate, or more so, than contractors and professional estimators? The answer: It is the architect's responsibility to give his client accurate professional advice. Estimating the cost of a project is a very important part of that professional advice. That such service is difficult to perform does not excuse the architect from shoddy performance any more than a brain surgeon who botches a difficult surgery.

Many large offices make a fetish of cost estimating and cost control. On very large projects requiring years to develop and years to construct, there is good reason to evaluate the work many times and exercise strict control over design of details and specifications. Most small office practitioners (SOP's) are not faced with this requirement. However, the problems relating to cost estimating is every architect's chore, and the SOP must, usually, solve these problems by himself. How can he do this without a costly and elaborate system executed by a staff of experts? For the answer to this question this paper is written.

The following lists the characteristics of an architect's estimate of probable cost of a project:

(1) **The Estimate Must Be Based On Incomplete Information:** during the schematic phase, only the most fundamental decisions have been made and these only tentatively; during the design development phase, fundamental decisions are firmly set, but there are still many decisions on finishes and equipment tentatively made or not made at all.

(2) **The Variation Of Conditions To Be Predicted** are wilder than selecting the place-horse at the race track. A teahouse is not just another teahouse. One teahouse is built on piling sitting in the cattails on the edge of a silty lake, built in the winter, in a resort town as still as death during winter, and labor is cheap; another is built on a suburban estate near a large city, with much building activity, union workers in short supply and it's spring when the fishing is fine. Although the design of each teahouse is almost identical, the variations of conditions

due to site, season, labor and material market influences the cost considerably.

(3) **Parameters Are Perhaps Unique To Architects;** only appraisers have similar parameters, but appraisers apply their parameters on things that exist, architects on things in the mind of the designer. Architects make good appraisers (many architects have served as damage appraisers for insurance companies during the aftermath of disasters), but appraisers are not good estimators for architects. Neither are contractors' estimators. Their parameters are in terms of quantities of materials and hours of labor.

(4) **Most Of The Time, The Architect's Fee Is Based On The Estimate.**

(5) **It Is The Vehicle Of Disillusionment For Both Architect And Client.** The cost estimate brings reality to the euphoria in which most architectural projects are born. An adequate budget suddenly is tight; a happy client is told to get more money or shave his requirements which makes him unhappy; the unhappy client looks, neither for more money or to fewer requirements, but for a scapegoat (usually the architect, but sometimes his wife or partner or assistant, all with whom the architect must relate his work); and the architect's manhood and diplomacy are tested.

The task of meeting the requirements that these characteristics of project cost forecasting require is the acquiring and using of parameters that are current, applying to a wide variety of building types, reflecting the variations of local conditions, accounting for the architects' design idiosyncrasies, and are adaptable for estimates of projects in other regions. For the SOP the parameters must also be easily developed and its currency maintained without a staff of experts and an inordinate expenditure of time and money.

One method for developing reliable parameters exploits the use of the schedule of values, which nearly every architect requires from the contractor, of parts of the work, totalling the lump sum of the contract; and in which profit and overhead are not separate items, but included in the value items of the overall breakdown. The architect uses this as a basis for determining the validity of the contractors' requisitioned amounts for payment entitled under the contract from time to time.

Since the architect describes the form and the items of work to be listed in the schedule of values, it is easy for him to list the work in a breakdown which will give him the cost parameters he needs. It is desirable to break down the work in units of assemblies that are general and adaptable to many projects of many building types. Unique finishes (such as "marble paving") should not be included in unit assemblies, unless, of course, a large percentage

H. Samuel Kruse, FAIA

Cost Estimating the Architects' Way

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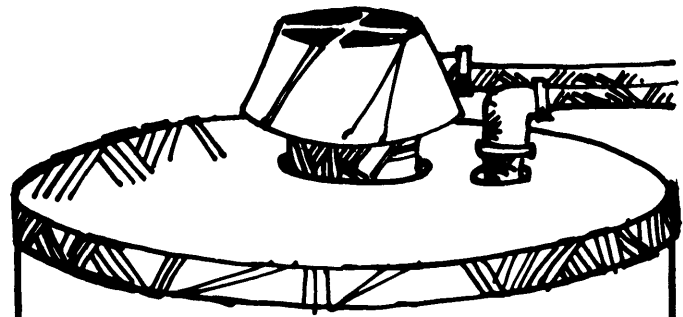
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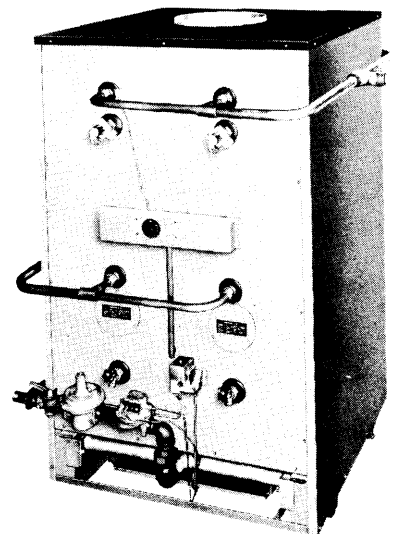
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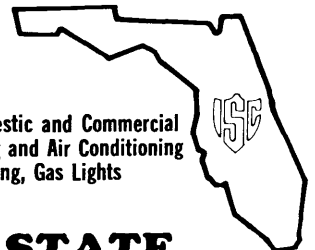
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of the architect's projects includes acres of marble paving. When the contractor submits his value figures for each item of work, the architect needs to do two things to obtain real-live cost figures for the kind of work he designs. First, determine the area and volume (computed according to AIA Document D 101) and divide the numbers into the lump sum of the contract less the value of the foundations and site work. This provides the architect with valid parameters for the square foot cost and cubic foot cost of a building type of his design, in his locale under certain conditions of season and market. Dividing the area into the foundation cost provides equally valid unit costs. The same can be done for site work, but use such unit cost with especial care. For estimating cost during the schematic phase of the work a collection of such parameters for various building types are very reliable and useful.

Secondly, the architect determines the in-place units in which he desires parameters for each item of work listed in the schedule of values; calculates the number of each in the project, divides these numbers into their corresponding values. This results in a collection of in-place unit costs particularly adaptable to estimates at the design development phase. Note that these parameters are for total cost of assemblies of work — a complete door assembly, or window in-place, or square foot of block wall complete. Thus the unit cost for a block wall includes the cost of the block, mortar, furring, lath, stucco and plaster, paint, skilled craftsmen's and helpers' wages, scaffolds, mixing machines, masonry saws, and profit and overhead for contractor and subcontractors involved. Such parameters are great time savers for estimating any project, regardless of type, having components represented by these unit costs.

An accumulation of such experience factors can refine the parameters but the passing of time changes the validity of any parameter. An SOP must know when to borrow an "Engineering News-Record Cost Index" from a friend or local library to find the cost differential from year to year of construction in his region and adjust his parameters periodically. This will keep them fresh and the architect out of trouble.

Please note that the task after the breakdown for the list of work in the schedule of values requires only a junior-high-school level of mathematical genius. An SOP might even entice his wife into doing it for him as a sort of game adults play. Once one has started to evaluate each project and has kept a notebook on the parameters developed, estimating becomes routine and easy. Such experience factors become good trading material also. Swap some of your parameters for those of another architect who has completed a project using construction you might use and for which you have no current parameters.

The final estimate at completion or near-completion of bidding documents should be an adjustment of the design development phase estimate. Sometimes the client, for reasons best known to himself, will want a detail forecast of the bidding. Such an estimate should be done by the quantity take-off/time estimate multiplied by current market costs, plus the job mobilization, accessory construction and service costs; shop drawings, insurance, employee benefits and other overhead costs; contingencies (at least 3 to 5%); and profit. An SOP wastes precious time on such an estimate (it's more like an unsubmitted bid than an estimate). He should buy such an estimate from a professional estimator. If the estimator is local and can sell the quantity survey to bidders later during the bidding period, then such an estimate should not be expensive.

However, if the SOP insists on doing such a detailed survey of his project in his office, he should subscribe to one or more of the commercial cost data systems. These systems give national, or regional average costs for materials and various classes of labor, estimates of time spent to do units of work, and other costs needed to estimate project cost. Some have indices showing the variation from the average costs for various geographic areas. Some are beginning to include in-place cost data where the major elements or a structure (floors, walls, electrical lighting, plumbing, air conditioning, partitioning, etc.) are given unit square foot or square yard costs for each of the elements. These have extra value to the architect for his collection of parameters. Remember always that the figures are averages over a wide assortment of projects, many of which have now resemblance to the class and type of work SOP's design. Test the systems on local projects and adjust the figures according to the findings.

Three such cost data systems have been widely used in Florida; all three need astute modifications to reflect local markets and conditions; all three require renewed subscriptions for accuracy of current cost trends. These are:

Means Building Construction Cost Data
Robert S. Means Co., P. O. Box 36
Duxbury, Mass., 02332

ENR Construction Cost Index
Engineering News-Record
330 W. 46th St.
New York, N. Y. 10036; \$10.00

Construction Pricing and Scheduling Manual
Dodge Building Cost Services
McGraw-Hill Information Systems Co.
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New York, N. Y. 10036; \$11.95

For excellent advice on methods for control and estimating building costs, read Chapter 5 by George E. Kassabaum, FAIA and Chapter 13 by Bernard J. Grad, FAIA in "Creative Control of Building Costs," edited by William Dudley Hunt, Jr. for American Institute of Architects, McGraw-Hill Book Co., New York, 1967. The key to estimating and cost control is validity of data. Adopt a simple system for continuous input of valid data, be frank with clients as to the sources and accuracy of that data, and honestly apply sound professional judgment. In cost estimating the architects' way, to be overly conservative is as wicked as underestimating. Projects that are overestimated do not give the client all the project his budget dollar will buy. The architect who makes such an estimate will find no more comfort than one who underestimates his projects' costs. ■

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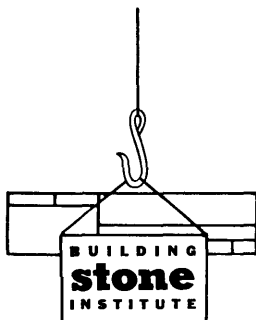
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This is a continuation of enrollment status at U.F.. The first appeared in the Nov.-Dec. '71 issue of the Florida Architect.

Richard H. Morse, AIA
Assistant Professor of Architecture

It has been a year since this journal reported to you the selective admissions policies of the University of Florida. Since that time we have experienced a full academic year of limited enrollment and have embarked on a second year under very nearly the same conditions and limitations. Perhaps a recap and an up-dating is in order.

The conditions of limited space and faculty which brought about our need for limited enrollment have been recognized and alleviated somewhat. Additional graduate assistant positions will free some faculty positions and give us a net gain in faculty. Additional classrooms have been assigned to the Department and this will help us keep course enrollment within a manageable level. Most of these increased facilities however are absorbed by the growing graduate enrollment.

A maximum of 200 juniors has been established as allowable for the Department to serve and still maintain quality educational levels. Within this total 130 are architecture students, 40 in Interior Design and 30 in Landscape Architecture. In the selection procedures an additional 5% to 10% is accepted to allow for accepted applicants who for a variety of reasons do not come for the quarter in which they are accepted. This is always a guess based on past history and a bad guess results in problems in balancing individual courses. The balancing of course sections becomes quite delicate when working with these numbers of students. As a particular example, two structures sections were recently planned to serve an estimated 60-70 students with the assumption each section would take 30-35 students. These sections ended up with 47 in one and 22 in the other because of the combination of other courses these students choose to take. Prior to 1970 a situation like this might have been resolved by an adjustment in teaching loads in order to make another structures teacher available at the time of this class and by finding an available classroom. The large section would be split and this last minute adjustment would go almost unnoticed. For the past two years all sections are maximum levels and teaching schedule adjustments are almost impossible.

Limited Enrollment

at the
University
of
Florida

Part of this particular situation is due to the freedom of choice we try to allow the students in their selection of courses. The Architecture curriculum is not rigid. There are certain numbers of courses the student must take each year and the combination each chooses is by individual desire, restricted only by pre-requisite requirements. Under our new four year baccalaureate program three required architecture courses are proposed each quarter along with an elective. These electives are a free choice of the student, with some counseling, but are non-architecture courses. The Department can offer almost no electives as the total effort must be devoted toward the required courses.

The selection process takes place at the junior level and is based upon criteria established in the winter 1971. The source of junior students is from a two-year college experience. During these two years certain pre-professional courses are required, but within the state only three institutions offer these courses; U.F., U. of Miami, and Miami-Dade Junior College. Applicants from these schools can prepare themselves completely for junior level professional courses and are considered in a slightly different manner than are applicants without a background in these specific courses. Applicants from all other Florida institutions cannot have this complete block of pre-professional work and must be so considered. Applicants from out of state non-architectural programs and those wishing to change from a different discipline do not have this pre-professional background either and must be so considered. These are the sources with which the selection criteria must deal and in as fair a manner as is possible.

The basic requirement for acceptance as an architecture student is a 2.0 grade point average (C) in all previous college work. A second requirement is completion of all the freshman and sophomore courses. This is tempered due to course availability at the applicants parent institution but no exceptions are made for other than pre-professional architecture work. In an effort to maintain some of the basic direction of architecture at U.F., a non-Florida resident or an applicant who is already enrolled in an architectural program are given a lower priority. Applicants seeking a second baccalaureate degree receive a second priority in deference to those who have not yet had the opportunity to earn their first degree, and those wishing to change from a different major are considered in a lower priority.

CONTINUED

Within these criteria are many more applicants than can be accepted. The judgement of a selection committee is employed and review of performance and potential is used to determine selection. The texture of an applicants prior college experience, while difficult to explain, can be very significant in the selection process. The following tables show the selection summary for the 1971-72 academic year.

1971-72 (Architecture only)	Number of Applications	Accepted	Denied	Did not Show
U.F. Lower Division	76	50	26	1
Miami-Dade Jr. College	57	42	15	7
Other Junior Colleges	98	40	58	9
Totals	231	132	99	17

While not included in the maximum number of juniors, those without the total pre-professional requirements must be programmed as to when they will be making demands on the junior courses. Most of these applicants are from Florida junior colleges; a vitally important part of the Florida educational process. These students must make up three to five pre-professional courses at U.F. and this can be accomplished in two or three quarters. This adds some time to their baccalaureate career but can usually be made up during one or two summer sessions.

Thus far, the selection criteria and processes employed have been adequate to contain the enrollment within the maximums allowed. Further restrictions are not being considered at this time.

Selection of applicants is made as quickly as possible but is a very time consuming process. Up to date count of enrollment predictions are available through enrollment statistics each quarter and pre-enrollment statistics in the middle of each quarter. Applications for September '72 arrived as early as December '71. All review was held until February and March for up to date enrollment statistics of current students. Most selection was completed by May or June but applications continued to come in through July. Selection is not made on a first come first serve basis and some marginal applicants were delayed due to the prospect of better qualified applicants arriving at a later date. As of August 1, 1972 the following table indicates the result of the selection process for the Fall '72 quarter.

Fall 1972 (Architecture Only)	Number of Applications	Accepted	Denied	Did not Show
U.F. Lower Division	51	42	9	0
Miami-Dade Jr. College	51	40	11	3
Other Junior Colleges	113	40	73	6
Totals	215	122	93	9

During this past year the Department of Architecture has lived with a number of frustrations. It is frustrating to see well qualified young people denied an opportunity to study architecture at U.F. It is frustrating for the faculty to have teaching loads such that their involvement in special studies electives and experimental teaching ideas must be curtailed. It is frustrating to schedule 22 students into a lab space containing 20 student stations. By our own criteria we have forfeited some of the "cosmopolitan" atmosphere created by students from various geographical backgrounds, prior study in different areas, and perhaps a span in age among students. We have almost lost the opportunity to provide a "second chance" to students who do not do well in their first college experience or choose to change their field of study. A great amount of University effort is expended in evaluation, review, counseling, and advisement due to curtailed enrollment. And perhaps a major frustration which we cannot yet measure, is the curtailed growth in graduating architects, landscape architects and interior designers. ■

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